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EXAMINER	
YUEN, KAN	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/654,161	LIU ET AL.	
	Examiner	Art Unit	
	KAN YUEN	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

2. Applicant's arguments filed on 3/15/2008 have been fully considered but they are not persuasive. Applicant argued that in claims 19 and 35, reference of Chiussi does not teach the limitation of "a first scheduler coupled to each traffic queue". Examiner respectfully disagreed. In fig. 1 of Chiussi, the first scheduler 15 services a set of per-flow queues 10 (see column 3, lines 32-35). Thus, the argument is not persuasive.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 19, 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Chiussi et al. (Pat No.: 7023857).

For claim 19, Chiussi et al. disclosed the method of a plurality of traffic queues (see fig. 1, upstream module 10), each traffic queue containing a plurality of message queues (see fig. 1, module 10 comprises many message queues) and a queue

scheduler, wherein each traffic queue enqueues messages of a single traffic type (see column 3, lines 25-67), wherein each message queue is used to store messages from a single message flow and the queue scheduler (see fig. 1, upstream scheduling node 15) orders the messages in the message queues according to a first scheduling algorithm (see column 4, lines 47-67, fig. 2, units 42, 44);

a first scheduler coupled to each traffic queue, the first priority scheduler containing circuitry to select a message from one of the traffic queues based upon a first serving algorithm (Chiussi et al. see column 3, lines 25-67, column 4, lines 47-67, and see fig. 1, and fig. 2). As shown in fig. 1, there are two-stages switching system. The queuing module 10 comprises plurality of queues, and the upstream scheduler or selector node 15 is configured to select queues based on bandwidth as the priority. Fig. 2 shows more detailed information about the module 10 and the upstream selector 15. The selector 40 comprises guaranteed bandwidth algorithm 42, and excess bandwidth algorithm 44;

a plurality of priority queues coupled to the first scheduler, wherein each priority queue is used to store messages selected by the first scheduler according to a message's assigned priority level (Chiussi et al. see column 3, lines 25-67, column 4, lines 47-67, and see fig. 1, and fig. 2). The module 20 comprises many message queues which are the priority queues, wherein the queuing messages are selected by the upstream selector 15;

a second scheduler coupled to each priority queue, the second scheduler containing circuitry to select a message from one of the priority queues according to a

second serving algorithm (Chiussi et al. see column 3, lines 25-67, column 4, lines 47-67, and see fig. 1, and fig. 2). A selector 25 or the second selector with the same configuration with the selector 15, which selects queues based on bandwidth as the priority. Fig. 2 shows more detailed information about the module 10 and the upstream selector 15. The selector 40 comprises guaranteed bandwidth algorithm 42, and excess bandwidth algorithm 44;

Regarding claim 35, Chiussi et al. disclosed the method of a plurality of traffic queues (see fig. 1, upstream module 10), each traffic queue containing a plurality of message queues (see fig. 1, module 10 comprises many message queues) and a queue scheduler, wherein each traffic queue enqueues messages of a single traffic type (see column 3, lines 25-67), wherein each message queue is used to store messages from a single message flow and the queue scheduler (see fig. 1, upstream scheduling node 15) orders the messages in the message queues according to a first scheduling algorithm (see column 4, lines 47-67, fig. 2, units 42, 44);

a first scheduler coupled to each traffic queue, the first priority scheduler containing circuitry to select a message from one of the traffic queues based upon a first serving algorithm (Chiussi et al. see column 3, lines 25-67, column 4, lines 47-67, and see fig. 1, and fig. 2). As shown in fig. 1, there are two-stages switching system. The queuing module 10 comprises plurality of queues, and the upstream scheduler or selector node 15 is configured to select queues based on bandwidth as the priority. Fig. 2 shows more detailed information about the module 10 and the upstream selector 15. The selector 40 comprises guaranteed bandwidth algorithm 42, and excess bandwidth

algorithm 44; a station coupled to the host, the station to permit communications between the host and other devices, the station comprising a plurality of priority queues coupled to the first scheduler, wherein each priority queue is used to store messages selected by the first scheduler according to a message's assigned priority level (Chiussi et al. see column 3, lines 25-67, column 4, lines 47-67, and see fig. 1, and fig. 2). The module 20 comprises many message queues which are the priority queues, wherein the queuing messages are selected by the upstream selector 15;

a second scheduler coupled to each priority queue, the second scheduler containing circuitry to select a message from one of the priority queues according to a second serving algorithm (Chiussi et al. see column 3, lines 25-67, column 4, lines 47-67, and see fig. 1, and fig. 2). A selector 25 or the second selector with the same configuration with the selector 15, which selects queues based on bandwidth as the priority. Fig. 2 shows more detailed information about the module 10 and the upstream selector 15. The selector 40 comprises guaranteed bandwidth algorithm 42, and excess bandwidth algorithm 44.

Claim Rejections - 35 USC § 103

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 2, 4-8, 11-14, 16-18, 22-27, 29-34, 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiussi et al. (Pat No.: 7023857), In view of Minshall (Pat No.: 698774).

For claim 1, Chiussi et al. disclosed the method of selecting a message from one of the message queues based on a priority assigned to each traffic type (Chiussi et al. see column 3, lines 25-67, column 4, lines 47-67, and see fig. 1, and fig. 2). As shown in fig. 1, there are two-stages switching system. The queuing module 10 comprises plurality of queues, and the upstream scheduler or selector node 15 is configured to select queues based on bandwidth as the priority. Fig. 2 shows more detailed information about the module 10 and the selector 15; providing the selected message to an interface; at a second level, reading the selected message from the interface (Chiussi et al. see column 3, lines 25-67, column 4, lines 47-67, and see fig. 1, and fig. 2). The selected message is provided to the upstream selector 15 or the interface; placing the read message into one of a plurality of priority queues (Chiussi et al. see column 3, lines 25-67, column 4, lines 47-67, and see fig. 1, and fig. 2). The upstream selector 15 placing the selected data to the module 20, wherein module 20 comprises

plurality of queues; We considered the module 20 as the second level or stage; and selecting a message from one of the plurality of priority queues for transmission when a transmit opportunity is available (Chiussi et al. see column 3, lines 25-67, column 4, lines 47-67, and see fig. 1, and fig. 2). A selector 25 with the same configuration with the selector 15, which selects queues based on bandwidth as the priority.

However, Chiussi et al. did not disclose the method of placing messages of a traffic type based on a specified criteria for the traffic type onto a message queue for the traffic type, wherein there are multiple traffic types and multiple message queues for the multiple traffic type located within one of a plurality of traffic queues. Minshall from the same or similar fields of endeavor teaches the method of placing messages of a traffic type based on a specified criteria for the traffic type onto a message queue for the traffic type, wherein there are multiple traffic types **(fig. 2, queues 211-223)** and multiple message queues **(fig. 2, group queues 205 and 207)** for the multiple traffic type located within one of a plurality of traffic queues: **(Minshall see fig. 2, and see column 1, lines 55-67, column 2, lines 1-20).** As shown, a set of priority traffics is stored into different group of queues. Each queue has different type of data. Queues 211 and 213 can be configured as A-group, 215 can be configured as B-group, 217 and 219 can be configured as C-group, and etc, wherein the A-group is corresponding to one of a plurality of traffic queues, and each with different priorities of services.

Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to replace the input of queueing modules 10 as taught by Chiusse et al. with the method as taught by Minshall. The motivation for using the method as

taught by Minshall in the network of CHiussi et al. being that it provides different type of services in an automated network.

Regarding claim 2, Minshall disclosed the method of for each traffic type, there are multiple message streams, and wherein messages from different message streams of each traffic type are placed in the message queue for that traffic type **(see fig. 2, and see column 3, lines 5-25).** As shown in the drawing, each queue represents different class of data, which can be arranged from high to low priority.

Regarding claim 4, Minshall disclosed the method of for each traffic type messages from the different message streams for that traffic typeare placed in the message queue for that traffic type based on a weighing of the different message streams for that traffic type **(see fig. 5, and see column 3, lines 5-25).** As shown in the drawing, each queue represents different class of data, which can be arranged from high to low priority (weighting).

Regarding claim 5, Minshall disclosed the method of the message selected in the first selecting is the message at a head of a message queue for a traffic type with the highest priority **(see fig. 5, and see column 3, lines 5-25),** wherein the reference, the highest priority group is selected.

Regarding claim 6, Minshall disclosed the method of the message selected in the second selecting is the message at a head of a message queue for a traffic type with the highest priority that has a granted transmission opportunity **(see fig. 2, and see column 2, lines 4-20),** wherein the reference, the highest priority group is selected by the second level scheduler 203.

Regarding claim 7, Minshall disclosed the method of the interface is a shared memory, and wherein the providing comprises writing the selected message to the shared memory **(see fig. 2, and see column 3, lines 65-67, and see column 4, lines 1-25).** The queuing groups 202, 204, and 206 are forwarded to the interfaces 205, 207, and 209. A packet scheduler combines features of priority-based scheduler and generalized processor sharing schedulers. Therefore, the scheduler 203 write a message from shared schedulers 205, 207 and 209.

Regarding claim 8, Minshall disclosed the method of the reading comprises retrieving the selected message from the shared memory **(see fig. 2, and see column 3, lines 65-67, and see column 4, lines 1-25).** The queuing groups 202, 204, and 206 are forwarded to the interfaces 205, 207, and 209. A packet scheduler combines features of priority-based scheduler and generalized processor sharing schedulers. Therefore, the scheduler 203 selects a message from shared schedulers 205, 207 and 209.

Regarding claim 11, Minshall disclosed the method of the transmit opportunity has multiple periods, and wherein in a first period, only the highest priority messages can be transmitted **(see column 3, lines 54-65).** As shown, the queue with greater value has the priority to transmit first, as well as with clock value less than others. Therefore, we can be interpreted that it transmits first.

Regarding claim 12, Minshall disclosed the method of in a second period, any priority message can be transmitted **(see column 3, lines 54-65).** The next (second) higher clock value queue is transmitted. The system also takes priority of lower value

queue to be transmitted first. Therefore, the next (second) higher clock value queue can be any priority queue being transmitted.

Regarding claim 13, Minshall disclosed the method of a message of a given priority can be selected only if there are no messages of a higher priority waiting to be transmitted **(see column 3, lines 5-25).** A next queue is selected if the higher priority queue does not have data to transmit.

Regarding claim 14, Minshall disclosed the method of a message of a given priority can be selected only if there are no transmission opportunities for messages of a higher priority **(see column 3, lines 5-25).** A next queue is selected if the higher priority queue does not have data to transmit. Therefore we can interpret that no data is same as no transmission opportunities.

Regarding claim 16, Minshall disclosed the method of the placing comprises putting the message into a priority queue assigned to enqueue messages of the same assigned priority **(see fig. 2, and see column 2, lines 4-20).** As shown, a set of traffics is stored into different group of queues. Each queue has different type of data.

Regarding claim 17, Minshall disclosed the method of the second selecting comprises choosing a message with an assigned priority level equal to that permitted in the transmission opportunity **(see fig. 2, and see column 2, lines 4-20).** At second selecting, the scheduler 203 selects the highest priority queue.

Regarding claim 18, Minshall disclosed the method of the second selecting further comprises choosing a message with a transmit time shorter than the transmission opportunity **(see fig. 2, and see column 2, lines 4-20, and see column**

3, lines 50-67). At second selecting, the scheduler 203 selects the highest priority queue, with less clock value.

Regarding claim 22, Minshall disclosed the method of the first serving algorithm selects the message based upon a priority level assigned to each traffic queue **(see fig. 2 box 205, 207, and 209, and see column 2, lines 4-20).** Each queue scheduler 205, 207, and 209 selects a queue from each of the group queues 202, 204 and 206 based on priority value (priority level).

Regarding claim 23, Minshall disclosed the method of the first serving algorithm selects the message based upon information regarding remaining bandwidth allocated for each traffic type **(see column 3, lines 65-67, and see column 4, lines 1-10).** The scheduler also guarantees bandwidth traffic, which we can interpret that scheduler selects based on bandwidth or remaining bandwidth.

Regarding claim 24, Minshall disclosed the method of information about the selected message is used to adjust the information about the remaining bandwidth allocation **(see column 3, lines 65-67, and see column 4, lines 1-10).** Once the highest priority queue is selected, the next queue with selected based on the previous bandwidth allocation.

Regarding claim 25, Minshall disclosed the method of an interface between the first scheduler and the plurality of priority of queues, the interface to allow the exchange of information between the first scheduler and the plurality of priority queues **(see fig. 2, and see column 2, lines 4-20 and see column 4, lines 1-10).** As shown, the first scheduler shares or exchanges information with the priority queues 205, 207, and 209.

Regarding claim 26, Minshall disclosed the method of the interface is a shared memory **(see fig. 2, and see column 3, lines 65-67, and see column 4, lines 1-25).** The queuing groups 202, 204, and 206 are forwarded to the interfaces 205, 207, and 209. A packet scheduler combines features of priority-based scheduler and generalized processor sharing schedulers. Therefore, the scheduler 203 write a message from shared schedulers 205, 207 and 209.

Regarding claim 27, Minshall disclosed the method of a priority queue can enqueue message from different message flows with equal assigned priority levels **(see column 3, lines 50-67). The** scheduler selects the priority group based on the priority values.

Regarding claim 29, Minshall disclosed the method of the second serving algorithm selects the message based upon an assigned priority level **(see fig. 5, and see column 3, lines 5-25).** As shown in the drawing, each queue represents different class of data, which can be arranged from high to low priority (priority level).

Regarding claim 30, Minshall disclosed the method of the second serving algorithm selects the message based upon information about which message priority can be transmitted **(see fig. 5, and see column 3, lines 5-25).** As shown in the drawing, each queue represents different class of data, which can be arranged from high to low priority (priority level).

Regarding claim 31, Minshall disclosed the method of the second serving algorithm selects the message if there is sufficient time to transmit the message **(see**

column 3, lines 50-67). The scheduler selects queuing groups based on the clock value.

Regarding claim 32, Minshall disclosed the method of information about the selected message is used to adjust the information about remaining time to transmit messages **(see column 3, lines 65-67, and see column 4, lines 1-10).** Once the highest priority queue is selected, the next queue with selected based on the previous bandwidth allocation.

Regarding claim 33, Minshall disclosed the method of information about the selected message is used to adjust the information about the message priority that can be transmitted **(see column 3, lines 65-67, and see column 4, lines 1-10).** Once the highest priority queue is selected, the next queue with selected based on the previous bandwidth allocation.

Regarding claim 34, Minshall disclosed the method of messages selected by the second scheduler are provided to a transmitter to transmit to the messages' intended destination **(Minshall see fig. 1 and 2, and see column 2, lines 4-20).** As shown, a set of traffics is stored into different group of queues. Each queue has different type of data. After the selection of priority group for transmission, the groups are being transmission by using link107 in fig. 1 to its destination.

Regarding claim 36, Minshall disclosed the method of an interface between the host and the station, the interface to permit an exchange of messages **(Minshall see fig. 2, and see column 2, lines 4-20 and see column 4, lines 1-10).** As shown, the

first scheduler shares or exchanges information with the priority queues 205, 207, and 209.

Regarding claim 37, Minshall disclosed the method of the interface is a shared memory **(Minshall see fig. 2, and see column 3, lines 65-67, and see column 4, lines 1-25).** The queuing groups 202, 204, and 206 are forwarded to the interfaces 205, 207, and 209. A packet scheduler combines features of priority-based scheduler and generalized processor sharing schedulers. Therefore, the scheduler 203 write a message from shared schedulers 205, 207 and 209.

Regarding claim 38, Minshall disclosed the method of the plurality of traffic queues is implemented in a memory in the host and the first scheduler is executing in processor in the host **(Minshall see fig. 2, and see column 3, lines 65-67, and see column 4, lines 1-25).** The queuing groups 202, 204, and 206 are forwarded to the interfaces 205, 207, and 209. A packet scheduler combines features of priority-based scheduler and generalized processor sharing schedulers. Therefore, the scheduler 203 write a message from shared schedulers 205, 207 and 209.

Regarding claim 39, Minshall disclosed the method of the plurality of priority queues is implemented in a firmware of the station and the second scheduler is executing in the firmware of the station **(Minshall see fig. 2, and see column 3, lines 65-67, and see column 4, lines 1-25).** As shown, the line card can be implemented with a software functions as described in the reference.

8. Claims 20, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiussi et al. (Pat No.: 7023857), in view of Gemar (Pat No.: 6414963).

For claim 20, Chiussi et al. did not disclose the method of the first scheduling algorithm enqueues messages based on their arrival time. Gemar from the same or similar fields of endeavor teaches the method of the first scheduling algorithm enqueues messages based on their arrival time **(see column 2, lines 59-67).** Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the method as taught by Gemar in the network of Chiussi et al. The motivation for using the method as taught by Gemar in the network of Chiussi et al. being that it provides data selection based on in most early arrived arrangement.

Regarding claim 28, Gemar disclosed the method of a priority queue enqueues messages based on their arrival time **(Gemar see column 2, lines 59-67).**

9. Claims 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiussi et al. (Pat No.: 7023857), in view of Del Prado Pavon et al. (Pub No.: 2004/0047351).

For claim 40, Chiussi et al. disclosed all the subject matter of the claimed invention with the exception of the station is a wireless network adapter. Del Prado Pavon et al. from the same or similar fields of endeavor teaches the method of the station is a wireless network adapter **(see paragraph 0046, lines 1-12, see paragraph 0048, lines 1-10).** Thus, it would have been obvious to the person of ordinary skill in the

art at the time of the invention to use the method as taught by Del Prado Pavon et al. in the network of Chiussi et al. The motivation for using the method as taught by Del Prado Pavon et al. in the network of Chiussi et al. being that the scheduling can be performing in a hybrid mode (wired and wireless environment).

Regarding to claim 41, Del Prado Pavon et al. also disclosed the method of the wireless network adapter is IEEE 802.11e compliant **(see paragraph 0046, lines 1-12, see paragraph 0048, lines 1-10).**

Regarding to claim 42, Del Prado Pavon et al. also disclosed the method of the station is a wired network adapter **(see paragraph 0046, lines 1-12, see paragraph 0048, lines 1-10).** Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the method as taught by Del Prado Pavon et al. in the network of Chiussi et al. The motivation for using the method as taught by Del Prado Pavon et al. in the network of Chiussi et al., being that the scheduling can be performing in a hybrid mode (wired and wireless environment).

10. Claims 3, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiussi et al. (Pat No.: 7023857), In view of Minshall (Pat No.: 698774), as applied to claim 2 above, and further in view of Gemar (Pat No.: 6414963).

For claim 3, Chiussi et al. and Minshall both did not disclose the method of for each traffic type, messages from the different message streams for that traffic type are placed in the message queue for that traffic type in a first-come first-served (FIFO)

order. Gemar from the same or similar fields of endeavor teaches the method of for each traffic type, messages from the different message streams for that traffic type are placed in the message queue for that traffic type in a first-come first-served (FIFO) order **(Gemar see column 2, lines 59-67).** Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the method as taught by Gemar in the network of Chiussi et al. and Minshall. The motivation for using the method as taught by Gemar in the network of Chiussi et al. and Minshall being that it provides data selection based on in most early arrived arrangement.

Regarding claim 21, Minshall disclosed the method of the first scheduling algorithm also enqueues messages based on a weighting value assigned to each message flow (Minshall see fig. 2 box 205, 207, and 209, and see column 2, lines 4-20). Each queue scheduler 205, 207, and 209 selects a queue from each of the group queues 202, 204 and 206 based on priority value (weighting value).

11. Claims 9, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiussi et al. (Pat No.: 7023857), In view of Minshall (Pat No.: 698774), as applied to claim 1 above, and further in view of Kramer et al. (Pat No.: 7116680).

For claim 9, Chiussi et al. and Minshall both did not disclose the method of the interface is a shared memory, and wherein the providing comprises writing a reference pointer to the selected message to the shared memory. Kramer et al. from the same or similar fields of endeavor teaches the method of the interface is a shared memory, and

wherein the providing comprises writing a reference pointer to the selected message to the shared memory **(Kramer et al. see column 2, lines 46-56).** As shown, the data is classified as reference in the memory. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the method as taught by Kramer et al. in the network of Chiussi et al. and Minshall. The motivation for using the method as taught by Kramer et al. in the network of Chiussi et al. and Minshall, being that it provides a convenient way to identify data with header or marker corresponding to its identities.

Regarding claim 10, Kramer et al. disclosed the method of the reading comprises retrieving the reference pointer and retrieving the selected message stored at a memory location indicated by the reference pointer **(Kramer et al. see column 2, lines 46-56).** As shown, the data is classified as reference in the memory.

12. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiussi et al. (Pat No.: 7023857), In view of Minshall (Pat No.: 698774), as applied to claim 12 above, and further in view of Einstein et al. (Pub No.: 2003/0189897).

For claim 15, Chiussi et al. and Minshall both did not disclose the method of a message of a given priority can be selected only if there is insufficient time in the transmission opportunity for messages of higher priorities. Einstein et al. from the same or similar fields of endeavor teaches the method of a message of a given priority can be selected only if there is insufficient time in the transmission opportunity for messages of

higher priorities **(see paragraph 0025, lines 1-10).** Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the method as taught by Einstein et al. in the network of Chiussi et al. and Minshall. The motivation for using the method as taught by Einstein et al. in the network of Chiussi et al. and Minshall, being that by setting a timer in the scheduling system will provides a faster result in transmission.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAN YUEN whose telephone number is (571)270-1413. The examiner can normally be reached on Monday-Friday 10:00a.m-3:00p.m EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky O. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/
Supervisory Patent Examiner, Art Unit 2616

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